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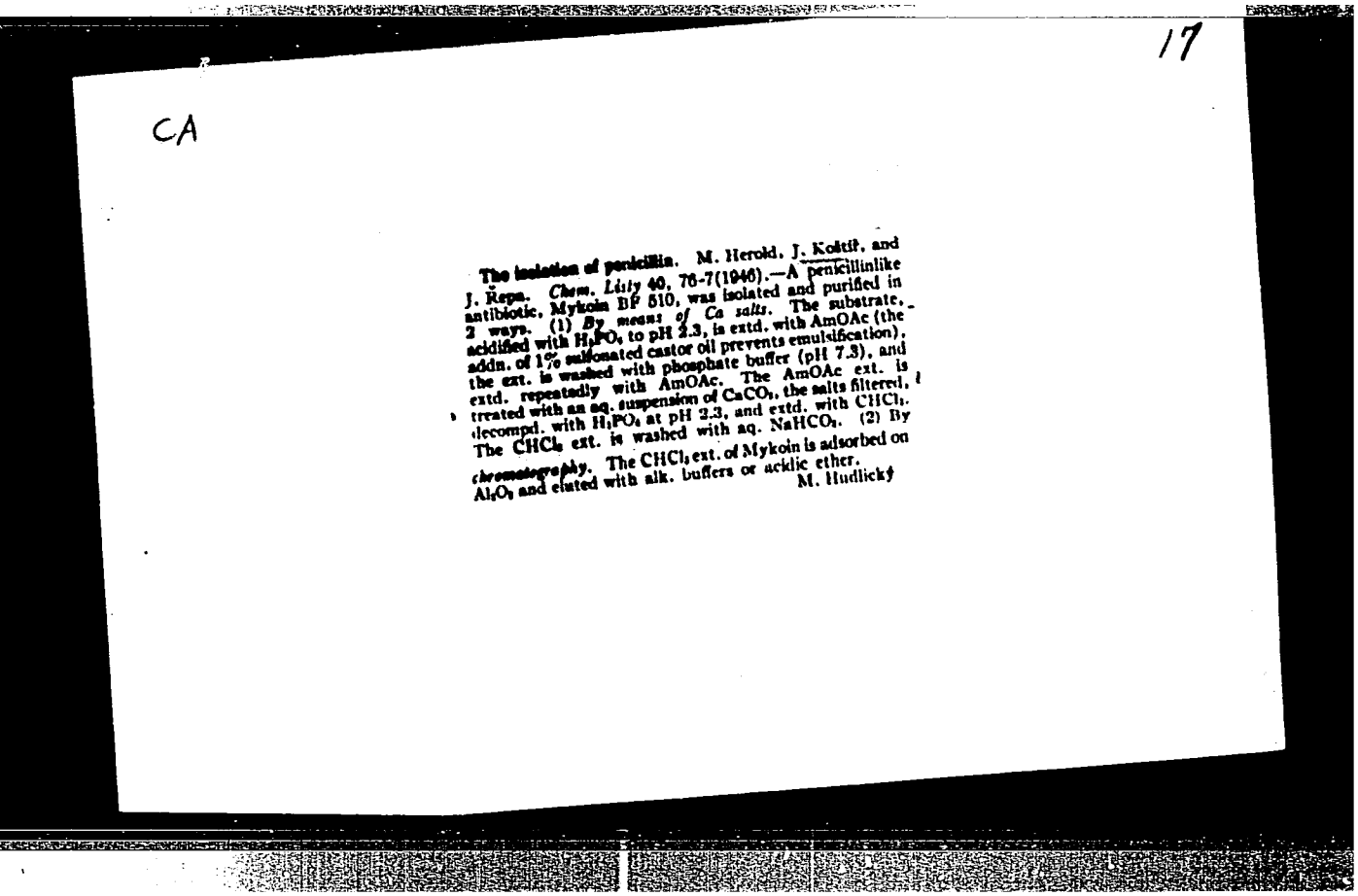

17

CA

The isolation of penicillin. M. Herold, J. Koltíř, and J. Řepa. *Chem. Listy* 40, 76-7(1946).—A penicillinlike antibiotic, Mykoin BP 510, was isolated and purified in 2 ways. (1) *By means of Ca salts.* The substrate, acidified with H_3PO_4 to pH 2.3, is extd. with AmOAc (the addn. of 1% sulfonated castor oil prevents emulsification), the ext. is washed with phosphate buffer (pH 7.3), and extd. repeatedly with AmOAc. The AmOAc ext. is treated with an aq. suspension of $CaCO_3$, the salts filtered, decompd. with H_3PO_4 at pH 2.3, and extd. with $CHCl_3$. The $CHCl_3$ ext. is washed with aq. $NaHCO_3$. (2) By chromatography. The $CHCl_3$ ext. of Mykoin is adsorbed on Al_2O_3 and eluted with alk. buffers or acidic ether.

M. Hudlický

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ε-Thiocaprolactam. J. V. Kotlář and Z. Pádr (Charles Univ., Prague). *Chem. Listy* 40, 280–1(1946).—ε-Caprolactam (5 g.) was refluxed with P_2S_5 in 20 g. xylene 30 min., and the mixt. filtered hot; crystals of *ε-thiocaprolactam* (I) sepd.; an addnl. amt. was obtained by ligroine pptn. (total yield, 72%, m. 100–1° (from xylene)]; HCl salt (from I and HCl in $CHCl_3$-ether), unstable when exposed to air. The Na and K salts of I were prepd. from I and the metals in C_6H_6. The attempt to prep. selenocaprolactam failed.

M. Hudlický

1951

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New substituted derivatives of thiourea. J. V. Kostíř, L. Loukota, and Z. Vejdělek. *Chem. Listy* 40, 281-2 (1946).—Substituted thioureas were prepd. from *MeNCS* (I), PrNCS (II), and CH_2:$CHCH_2NCS$ (III) and the appropriate amines by mixing, and, if necessary, heating in EtOH or MeOH solns. *MeNHCSNEt*$_2$ (10 g.) from 15 g. I, 40 ml. Et_2NH in 20 ml. EtOH, m. 25-8° (from C_6H_6:PhMe, 1:1). *MeNHCSN(CH*$_2$*CH*$_2$*OH)*$_2$, from 15 g. I and 21 g. $(HOCH_2CH_2)_2NH$ (IV) in 50 ml. EtOH, viscous oil, decomp. at 80°/24 mm. (yield quant.). *PrNHCSNMe*$_2$, from 8 g. II and 14 g. 31% EtOH soln. of Me_2NH, viscous oil in quant. yield. *PrNHCSNEt*$_2$ (7 g.), from 5 g. II, 3.8 g. Et_2NH, and 30 ml. MeOH, yellowish viscous oil. *PrNHCSNHCHMe*$_2$ (10 g.), from 30 g. 20% soln. of iso-$PrNH_2$ and 8 g. II, m. 76°, sol. in hot water and org. solvents. *CH*$_2$*:CHCH*$_2$*NHCONMeBu* (95%), from 15 g. III and 14 g. MeBuNH, viscous oil. CH_2:$CHCH_2NHCSN(CH_2CH_2OH)_2$, from 50 g. III, 84 g. IV, and 50 ml. EtOH, viscous oil in quant. yield, decomp. when distd. at 4 mm.

M. Hudlický

1957

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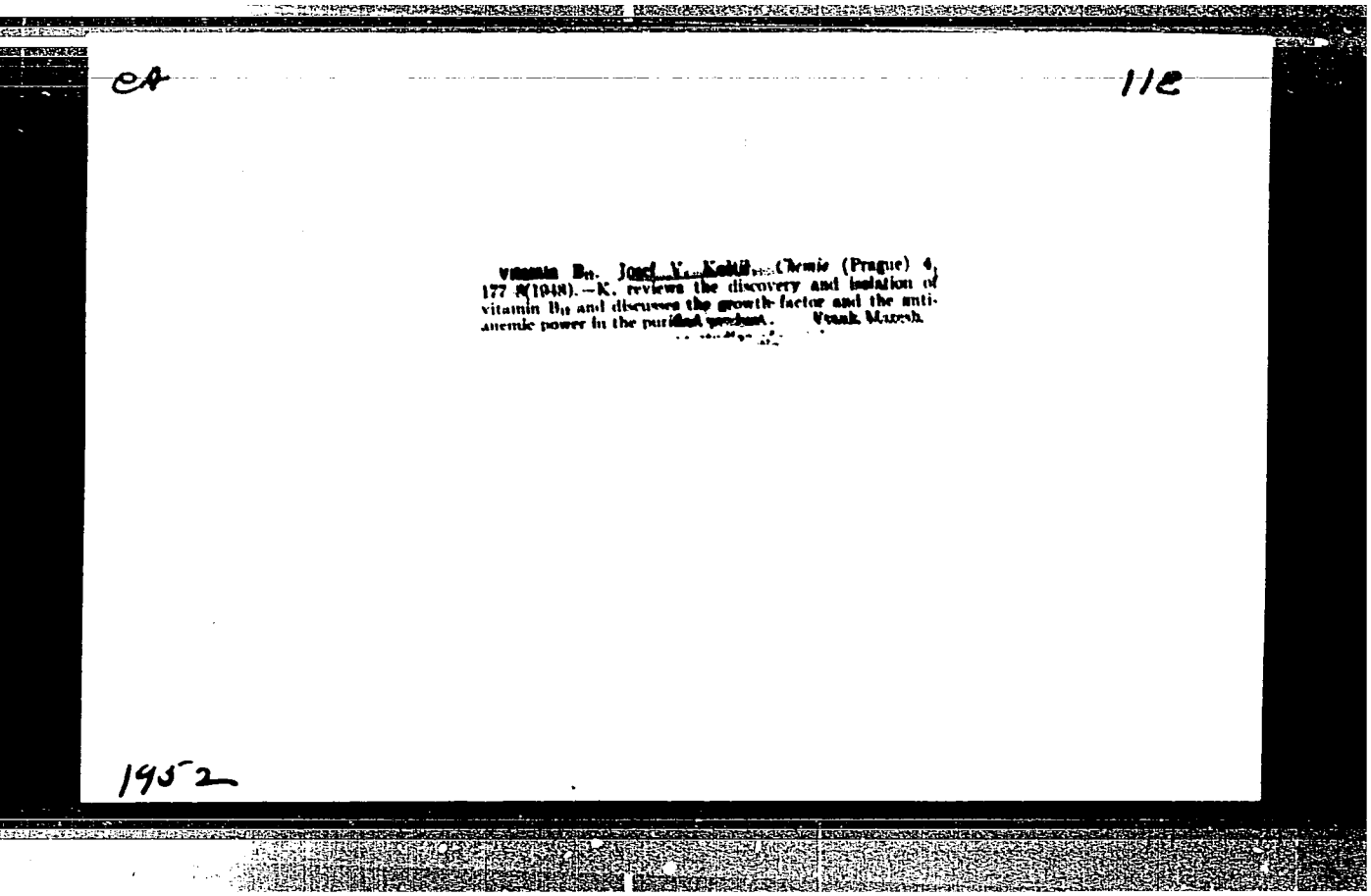

CA

11C

vitamin B12. Josef V. Kalíš. Chemie (Prague) 4, 177 (1948).—K. reviews the discovery and isolation of vitamin B_{12} and discusses the growth factor and the antianemic power in the purified products. Frank Marsh.

1952

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Synthesis of 2,3-bis(alkylmercapto)propanols. J. V. Kopřiva and V. Král. *Collection Czechoslov. Chem. Communs.* 14, 219-22(1949)(in English).—$CH_2BrCHBrCH_2OAc$ (I) and MeSNa in abs. EtOH at 20° gave 58% $CH_2(SMe)CH(SMe)CH_2OAc$, bp 124°, and MeSNa and I gave 62% $CH_2(SMe)CH(SMe)CH_2OH$, bp 145°, and Et_2S, bp 85°. $PhCH_2SNa$ and I gave $CH_2(SCH_2Ph)CH(SCH_2Ph)CH_2OAc$ (II) which decompd. on distn. at 0.5 mm.; $(PhCH_2)_2S$ was isolated from the distillate in the distn. of II.

P. M. Downey

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Synthesis of β-(2 thienyl)alanine. J. V. Kottil and V. Král. *Collection Czechoslov. Chem. Communs.* 14, 281-6 (1949)(in English).—Thiophene prepd. by the distn. of $(CH_2CO_2Na)_2$ with P_2S_5 was converted to 2-thenylmethyl chloride (I) according to the method of Blicke and Burckhalter (*C.A.* **36**, 2351⁹). $HCONHCH(CO_2Et)_2$ (20.4 g.) (cf. Galat, *C.A.* **41**, 4106*i*) and 2.29 g. Na in 150 cc. abs. EtOH, treated with 13.3 g. I and the mixt. heated 30 min. on the H_2O bath, poured into ice-H_2O, and dried first over H_2SO_4 and then over P_2O_5 gave 28 g. *Et formamido-2-thenylmalonate* (II), m. 112.5° (from EtOH); II could not be hydrolyzed and decarboxylated directly with HCl (cf. Rinr, *Chem. Listy* **42**, 6(1948)). II (15 g.) and 15.7 g. $Ba(OH)_2 \cdot 8H_2O$ in 100 cc. H_2O refluxed 2 hrs. gave 15 g. *Ba formamido-2-thienylmalonate* (III). III (3.78 g.) and 10 cc. 2 *N* H_2SO_4 were refluxed for 30 min., the hot reaction mixt. filtered, the filtrate taken to dryness under reduced pressure, the residue treated with 10 cc. concd. HCl, refluxed for 10 min., the HCl distd. off, and the HCl treatment repeated; the dry residue in 20 cc. EtOH added to 100 cc. pyridine gave 1.0 g. (60%) *β-2-thienylalanine*, m. 274-6° (decompn.) (cf. Barger and Easson, *C.A.* **33**, 1602⁹). P. M. Downey

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73

A NEW SYNTHESIS OF 6-BROMO-3-METHOXYTOLUENE. J. Böewert and J. V. Kostíř. Chem. Listy 43, 235(1949).—6,3-Br(MeO)C_6H_3Me was prepd. by another method—methylation of 6, 3-Br(HO)C_6H_3Me with Me_2SO_4 in an alk. soln. at 60°; yield, 93%, b_{34} 156-64°, b. 236-7°.
M. Hudlický

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C. A.

A NEW SYNTHESIS OF 6-METHYL-2,4-DITHIOURACIL. J. V. Kolář and V. Král. Chem. Listy 43, 37(1949).--Thiourea (1.1 g.) in 2% MeCSCH$_2$CSOEt was added to 0.56 g. Na in 20 ml. abs. EtOH, the brown reaction mixt. refluxed 30 min. at 100°, the EtOH distd. in vacuo, the brown salt dissolved in 20 ml. H_2O, acidified with HCl to Congo red (H_2S escaped), the ppt. filtered off, washed with EtOH, repptd. from 2 N NaOH, and the yellow ppt. washed with water; it is sol. in alk. solns., insol. in acids and org. solvents, decomp. above 260°. Miloš Hudlický

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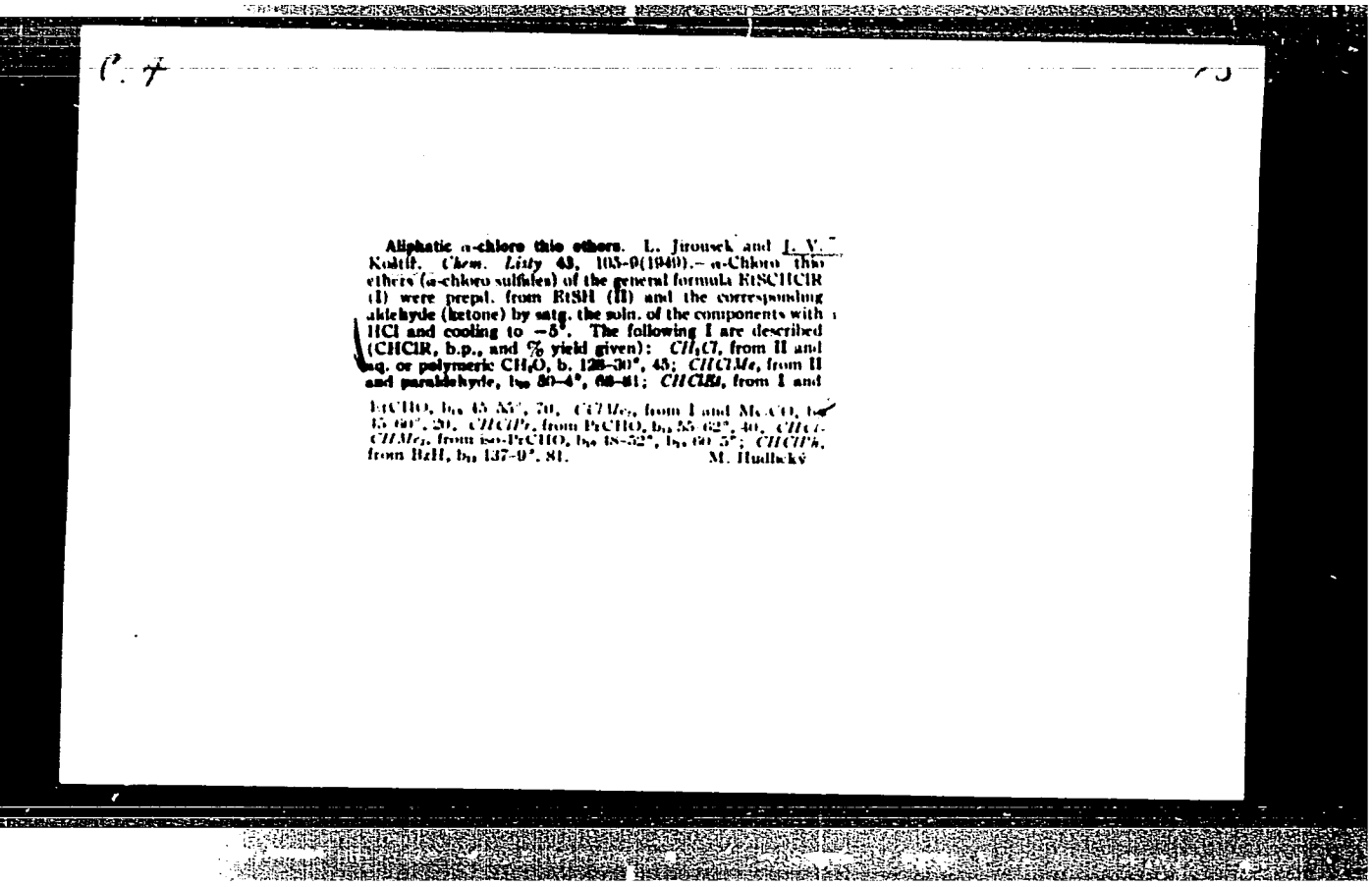

Aliphatic α-chloro thio ethers. L. Jirousek and J. V. Kadlíř. *Chem. Listy* **43**, 103-9(1949).— α-Chloro thio ethers (α-chloro sulfides) of the general formula RtSCHClR (I) were prepd. from RtSH (II) and the corresponding aldehyde (ketone) by satg. the soln. of the components with HCl and cooling to −5°. The following I are described (CHClR, b.p., and % yield given): *ClH$_2$Cl*, from II and aq. or polymeric CH$_2$O, b. 128–30°, 45; *ClHClMe*, from II and paraldehyde, b$_{20}$ 80–4°, 68–81; *CHCl$_2$i*, from I and PrCHO, b$_{15}$ 45–55°, 70; *ClClMe$_2$*, from I and Me$_2$CO, b$_{15}$ 60°, 20; *ClHClPr*, from PrCHO, b$_{15}$ 55–62°, 40; *ClHCl-ClMe$_2$*, from iso-PrCHO, b$_{20}$ 48–52°, b$_{15}$ 60–5°; *ClHClPh*, from BzH, b$_{15}$ 137–9°, 81.

M. Hudlický

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C. A.

16

Nitrogen derivatives of aliphatic thio ethers. L. Jirousek and J. V. Kotlík. *Chem. Listy* **43**, 183–4(1949).—ω-Aminoalkyl ethyl sulfides were prepd. from the corresponding ω-chloroalkyl ethyl sulfides (cf. preceding abstr.) with NH_3, C_5H_5N, and $PhNH_2$. *Aminomethyl Et sulfide*, prepd. from $EtSCH_2Cl$ and excess liquid NH_3; HCl salt, sublimes without melting, and possesses a disagreeable irritating smell. *1-Aminoethyl Et sulfide* was similarly prepd. as the HCl salt. *1-(2-Ethylmercaptoethyl)pyridinium chloride*, obtained from $EtSCH_2CH_2Cl$ (I) and pyridine in Et_2O, white cryst. mass; *picrate*, m. 68–70° (decompn.). *N-(2-Ethylmercaptoethyl)-aniline-HCl*, from aniline and I in Et_2O, m. 190–2°, sol. in water, EtOH, insol. in Et_2O and C_6H_6. M. Hudlický

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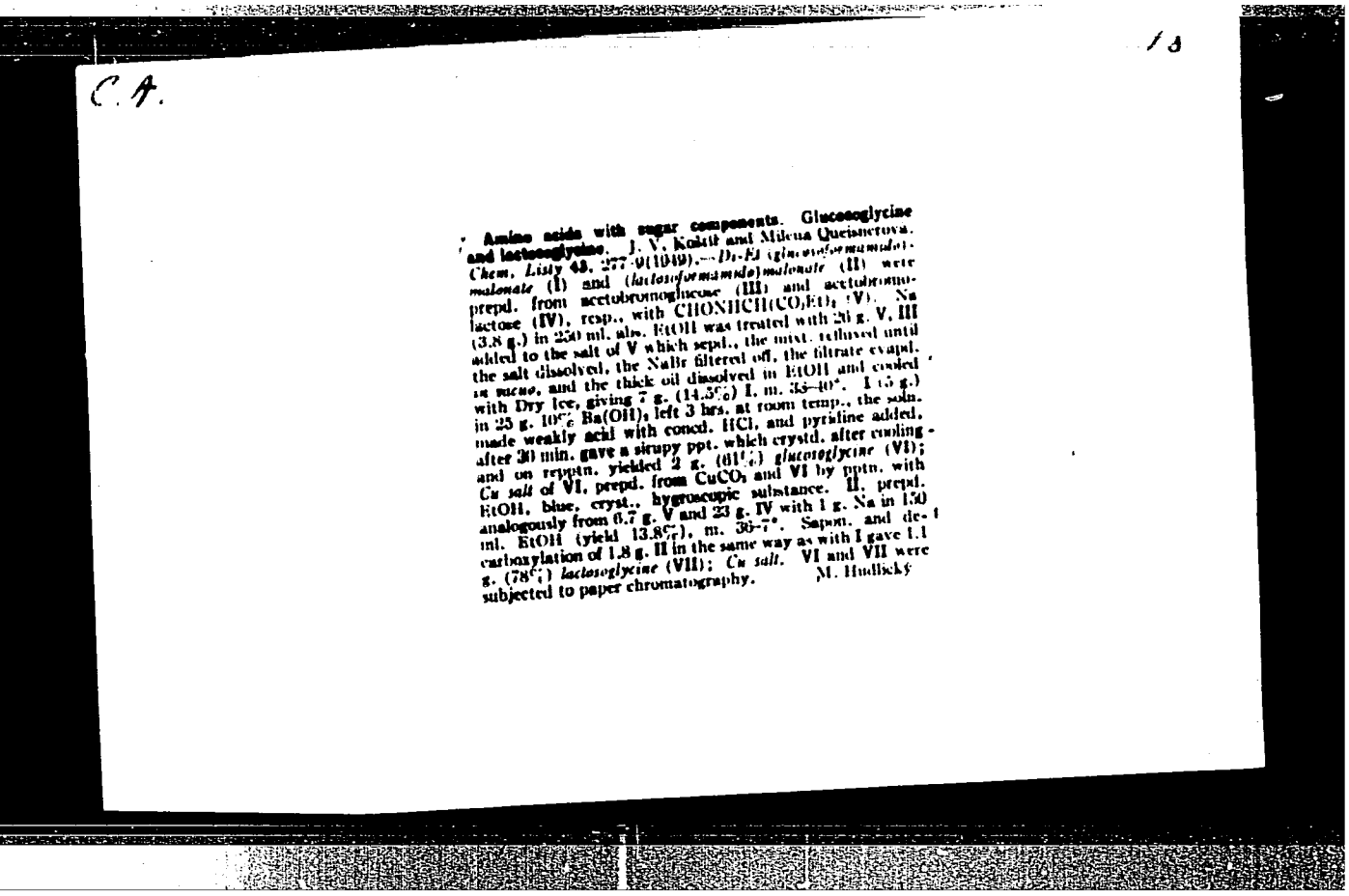

C.A.

1 3

Amino acids with sugar components. Glucosoglycine and lactosoglycine. J. V. Kolář and Milena Queisnerová. *Chem. Listy* 43, 277-9(1949).—*Di-Et (glucoseformamido)malonate* (I) and (*lactoseformamido*)*malonate* (II) were prepd. from acetobromoglucose (III) and acetobromolactose (IV), resp., with $CHONHCH(CO_2Et)_2$ (V). Na (3.8 g.) in 250 ml. abs. EtOH was treated with 26 g. V, III added to the salt of V which sepd., the mixt. refluxed until the salt dissolved, the NaBr filtered off, the filtrate evapd. *in vacuo*, and the thick oil dissolved in EtOH and cooled with Dry Ice, giving 7 g. (14.5%) I, m. 35–40°. I (5 g.) in 25 g. 10% $Ba(OH)_2$ left 3 hrs. at room temp., the soln. made weakly acid with concd. HCl, and pyridine added, after 30 min. gave a sirupy ppt. which crystd. after cooling and on repptn. yielded 2 g. (61%) *glucosoglycine* (VI); *Cu salt* of VI, prepd. from $CuCO_3$ and VI by pptn. with EtOH, blue, cryst., hygroscopic substance. II, prepd. analogously from 6.7 g. V and 23 g. IV with 1 g. Na in 150 ml. EtOH (yield 13.8%), m. 38–7°. Sapon. and decarboxylation of 1.8 g. II in the same way as with I gave 1.1 g. (78%) *lactosoglycine* (VII); *Cu salt*. VI and VII were subjected to paper chromatography. M. Hudlický

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A new synthesis of proline and hydroxyproline. Jiřina Caphová-Jirků, J. V. Kolář, and M. Vondráček (Charles Univ., Prague). Chem. Listy 44, 19-21(1950).—ClCH$_2$-CH$_2$CH$_2$Br (I) and the Na salt of HCONHCH(CO$_2$Et)$_2$ (II) gave *di-Et (3-chloropropyl)formamidomalonate* (III), m. 87°, which, on hydrolysis with NaOH, gave Na (3-chloropropyl)aminomalonate (IV). IV was cyclized by acidification with HCl and evapn. to DL-*proline*·HCl (V). $BaCO_3$ liberated DL-*proline* (Va) from V. II with *epibromohydrin* (VI) gave the *γ-lactone of mono-Et (3-bromo-2-hydroxypropyl)formamidomalonate* (VII), which yielded the Na *salt of the lactone of (3-bromo-2-hydroxypropyl)aminomalonic acid* (VIII). VIII and HCl gave *hydroxyproline*·HCl (IX) from which *hydroxyproline* (X) was liberated with $BaCO_3$. Na (2.3 g.) in 45 ml. EtOH and 20.3 g. II gave the Na salt of II, to which was added 20.5 g. I, the mixt. refluxed 2 hrs., the NaBr removed, and the boiling mixt. contg. III treated with small portions of pulverized NaOH (2.5 g. in the course of 4 hrs.) to yield IV. After cooling, the mixt. was dissolved in 20 ml. water, the EtOH evapd., the residue dild. with 40 ml. water, acidified with concd. HCl, evapd. to dryness on a steam bath, the residue dissolved in concd. HCl, filtered, evapd., kept in a desiccator over H_2SO_4. Cryst. V dissolved in 20 ml. EtOH, dild. with 80 ml. water, the EtOH evapd., the mixt. treated with $PbCO_3$, filtered, the filtrate evapd., extd. with 20 ml. 93% EtOH to remove unchanged glycine, and the ext. evapd. and Va purified as the Cu salt. III was usually not isolated. To prep. X, 2.3 g. Na, 45 ml. EtOH, 20.3 g. II, and 17.8 VI were heated 2 hrs. on a steam bath, the NaBr removed, and the mixt. treated with 1.5 g. pulverized NaOH and heated 6 hrs.; X was obtained and isolated in the same manner as Va. M. Hudlický

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A new synthesis of 1-bromo-3-methyl-4-hydroxyanthraquinone. J. V. Kohlíř and J. Bowart (Charles Univ., Prague). *Chem. Listy* 44, 42-3(1950).—o-$C_6H_4(CO)_2O$ (1 g.) and 1.68 g. 4,3-BrMeC$_6$H$_3$OH were added in portions to a melt of 11 g. AlCl$_3$ and 2.2 g. NaCl at 140-50°, the mixt. heated 2 hrs. at 200°, then cooled, treated with dil. HCl, boiled, filtered, the residue boiled 5 times with water, dried, and the product extd. with hot AcOH to yield 1.4 g. (50%) *1-bromo-3-methyl-4-hydroxyanthraquinone*, orange crystals, m. 185°.

M. Hudlický

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Esters of formamidomalonic acid. J. Čapková-Jirků, J. V. Kohlíř, and M. Vondráček (Charles Univ., Prague). *Chem. Listy* 44, 114-16(1950).—The *Na salt* of $HCONHCH(CO_2Et)_2$ (I) and $BrCH{:}CHCH_2Br$ (II) gave $BrCH{:}CHCH_2C(NHCHO)(CO_2Et)_2$ (III), which with I gave $(OHCNH)(CO_2Et)CCH_2CH{:}CHC(NHCHO)(CO_2Et)_2$ (IV). Addn. of Br to IV gave $(OHCNH)(CO_2Et)CCH_2CHBrCHBrC(NHCHO)(CO_2Et)$ (V). $CH_2{:}CBrCH_2Br$ (VI) and I gave $CH_2{:}CBrCH_2C(NHCHO)(CO_2Et)_2$ (VII), which with Br gave $CH_2BrCBr_2CH_2C(NHCHO)(CO_2Et)_2$ (VIII). The *Mg salt* of I and BuBr gave $BuC(NHCHO)(CO_2Et)_2$ (IX). Na (2.3 g.) in 46 ml. EtOH was treated with 20.3 g. I and 20 g. II and heated 30 min. on a steam bath. After removal of NaBr and EtOH 40% III, m. 49–50°, was ppted. with water from EtOH soln.; III is sol. in EtOH, Et_2O, and boiling water and insol. in cold water. In the same manner 55% IV, colorless needles, m. 64–5°, was prepd. from III and I by heating the mixt. 3 hrs. on the steam bath. IV is sol. in EtOH and Et_2O and insol. in water. Bromination of 2 g. IV in CCl_4 with 0.8 Br gave 68% V, m. 174°. VII was prepd. from I and VI with the same amts. of reagents as in the prepn. of III. The product was digested with hot water. VII (42.8%) sepd. as an oil which formed crystals, m. 80–80.5° (from water). VII with Br in CCl_4 gave 72% VIII, m. 133–6°. VIII is sol. EtOH, Et_2O, and $CHCl_3$ and insol. in water. Mg (0.3 g.) was boiled 15 min. with 3 g. I in 20 ml. AmOH, an equiv. amt. of BuBr added, the mixt. heated 2 hrs. on the steam bath, the AmOH stripped off in vacuo, the residual oil digested with Et_2O, the ether ext. washed with dil. HCl, Na_2CO_3 soln., and water, the ether evapd., and the oil dissolved in EtOH and poured into water; IX (37%) sepd as crystals, m. 101°. IX is sol. in EtOH and Et_2O and insol in water.

M. Hudlický

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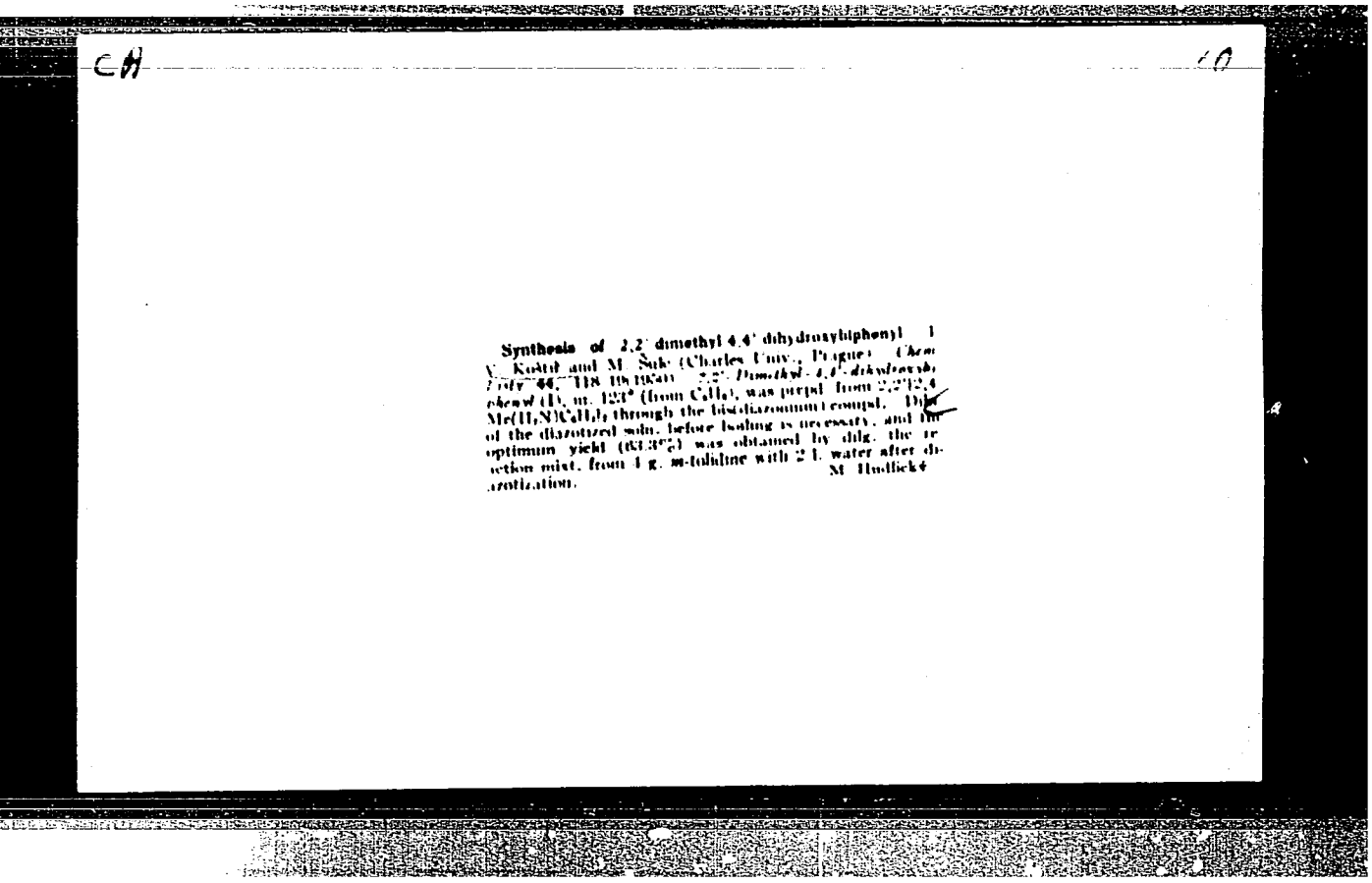

Synthesis of 2,2' dimethyl 4,4' dihydroxybiphenyl. V. Kotrlý and M. Šuk (Charles Univ., Prague). *Chem. Listy* 44, 118-19(1950). 2,2'-Dimethyl-4,4'-dihydroxyazobenzene (I), m. 123° (from CaHa), was prepd. from 2,2'-(2,4-Me(H,N)C$_6$H$_3$)$_2$ through the bisdiazonium compd. Dilute of the diazotized soln. before boiling is necessary, and the optimum yield (63.3%) was obtained by dilg. the reaction mixt. from 1 g. *m*-toluidine with 2 l. water after diazotization.

M. Hudlický

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BERAN, M.; KOSTIR, J.V.; PADR, Z.

Artificial iodization of proteins; preparation of iodized casein. Cas.cesk.lek.Ved.priloha 63 no.9-12:136-138 Dec 1950. (CLML 20:9)

1. Of the Institute of Organic Chemistry of Charles University, Prague.
2. Of the Research and Control Institute, United Pharmaceutical Works, Prague.

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KOSTIR, J.V.

Protein chemistry. Sborn. pathofysiol. trav. vys. 5 no.6:261-266 1951.
(CLML 23:2)

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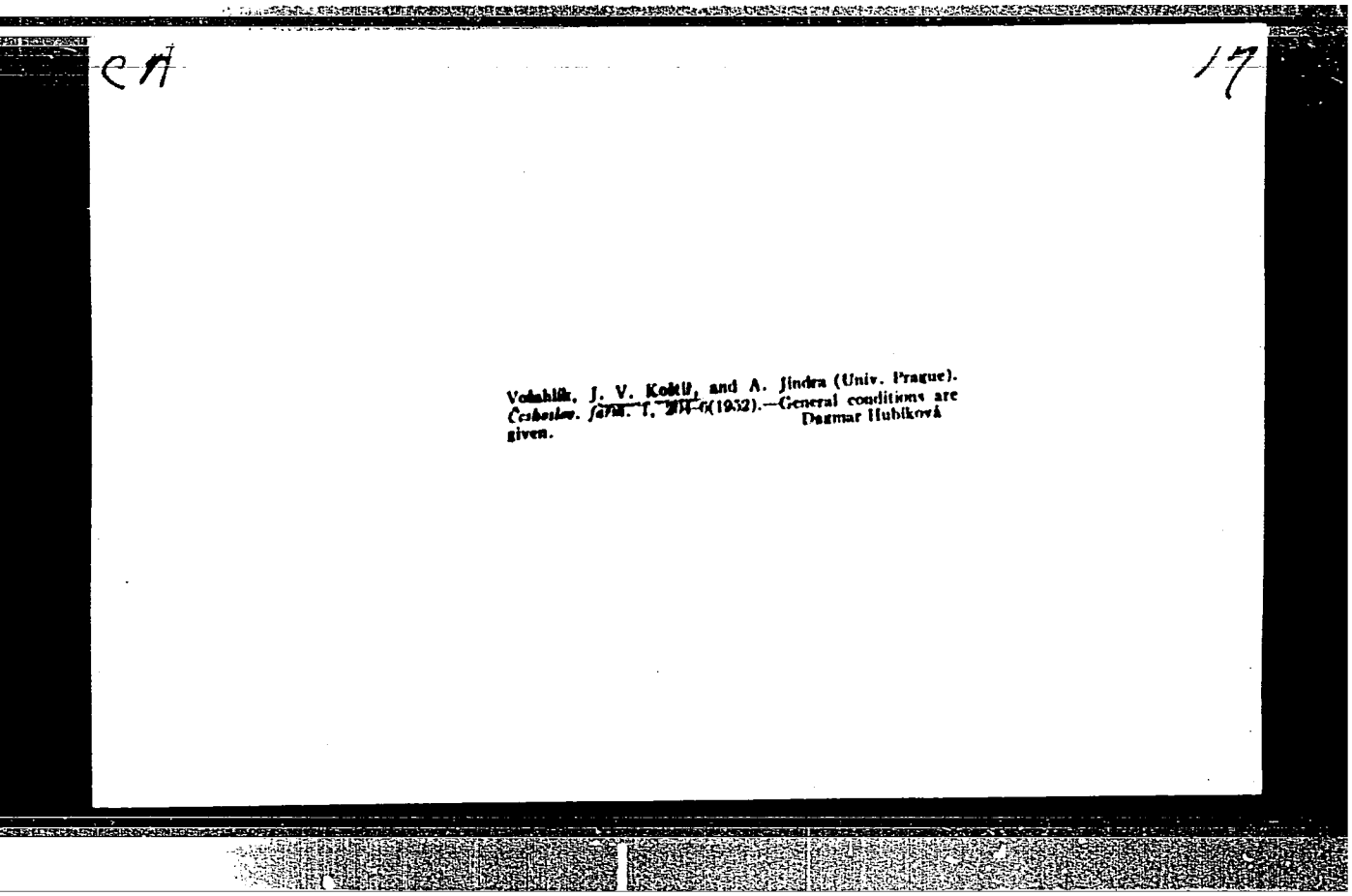

Vobahlík, J. V. Kobli, and A. Jindra (Univ. Prague). *Československ. farm.* 1, 2[illegible]-6(1952).—General conditions are given.
Dagmar Hubíková

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Symphytum officinale. J. V. Kolář and A. Bína (Univ. Prague). *Českoslov. farm.* 1, 265-9(1952).—A review on botany, history, chemistry, and use, with 32 references.
Dagmar Hubíková

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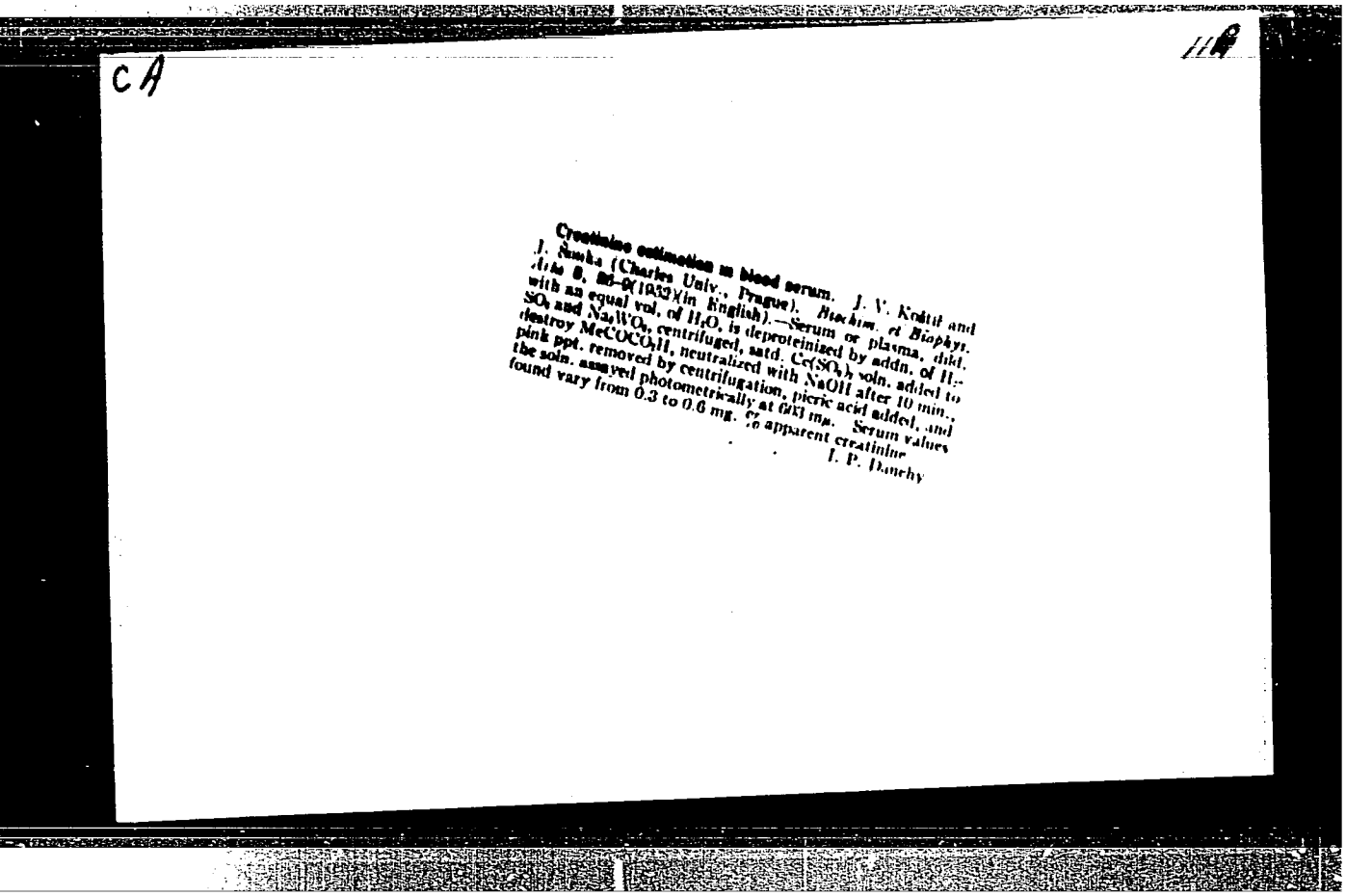

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Creatinine estimation in blood serum. J. V. Knüttl and J. Šmíka (Charles Univ., Prague). *Biochim. et Biophys. Acta* 8, 88–9(1932)(in English).—Serum or plasma, dild. with an equal vol. of H_2O, is deproteinized by addn. of H_2SO_4 and Na_2WO_4, centrifuged, satd. $Ce(SO_4)_2$ soln. added to destroy $MeCOCO_2H$, neutralized with NaOH after 10 min., pink ppt. removed by centrifugation, picric acid added, and the soln. assayed photometrically at 633 mμ. Serum values found vary from 0.3 to 0.6 mg. % apparent creatinine.

I. P. Danchy

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KOSTIR,J.V.;HYBAR, D.J.;OULEHLA,B.;HAIS, I.M.;BEHAN, M.

Chromatographic determination of ergotamine and ergotoxine. Cesk. farm. 1 no. 11-12:621-625 1952. (CLML 24:1)

1. Of the Research Institute for Pharmacy and Biochemstry and of Biochemstry of Charles University, Prague.

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1

KOSTIR, J.V.; PRISTOUPIL, T.I.

Isolation of creatinine and glycocyamine with paper chromatography. Cesk. farm. 1 no. 11-12:647-649 1952. (CIML 24:1)

1. Of the Institute of Biochemistry of Charles University and of the Third Internal Clinic of State Faculty Hospital, Prague.

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1

KOSTIR, J.;PADR, Z.

Veratrum alkaloids. Cesk. farm. 2 no.12:418-422 Dec 1953. (CIML 25:5)

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1

KOSTIR J.

Paper partition chromatography of the fission products of riboflavin. IV. Effect of pH and light on solutions of riboflavin. p.205
(Chemicke Listy. Vol. 47. no. 2, Feb. 1953) Czechoslovakia

SO: Monthly List of East European Accessions, Vol. 2, #8, Library of Congress, August 1953, Incl.

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1

NOSTIR, JOSEF V.

Paper chromatography of glucocyamidine in urine. Josef V. Košťíř and Tomáš I. Přistoupil (Karls Univ., Praha, Czech.). *Časopis Lékařů Českých* 92, 188(1953).—Urine was subjected to paper chromatography with H_2O-satd. PhOH, BuOH, and H_2O in the ratio 1:1:2 on Whatman No. 1 or S. & S. 605 paper at 18°. It was discovered that some glucocyamidine (I) is present besides the creatinine (II), but the presence of I does not falsify the results of a II detn. with the Jaffe reaction by the usual method. The ratio of II:I is always 6:1 to 3:1 in normal urines and in those from patients with diabetes mellitus, liver cirrhosis, chronic nephritis, myositis ossificans, and other diseases.
Werner Jacobson

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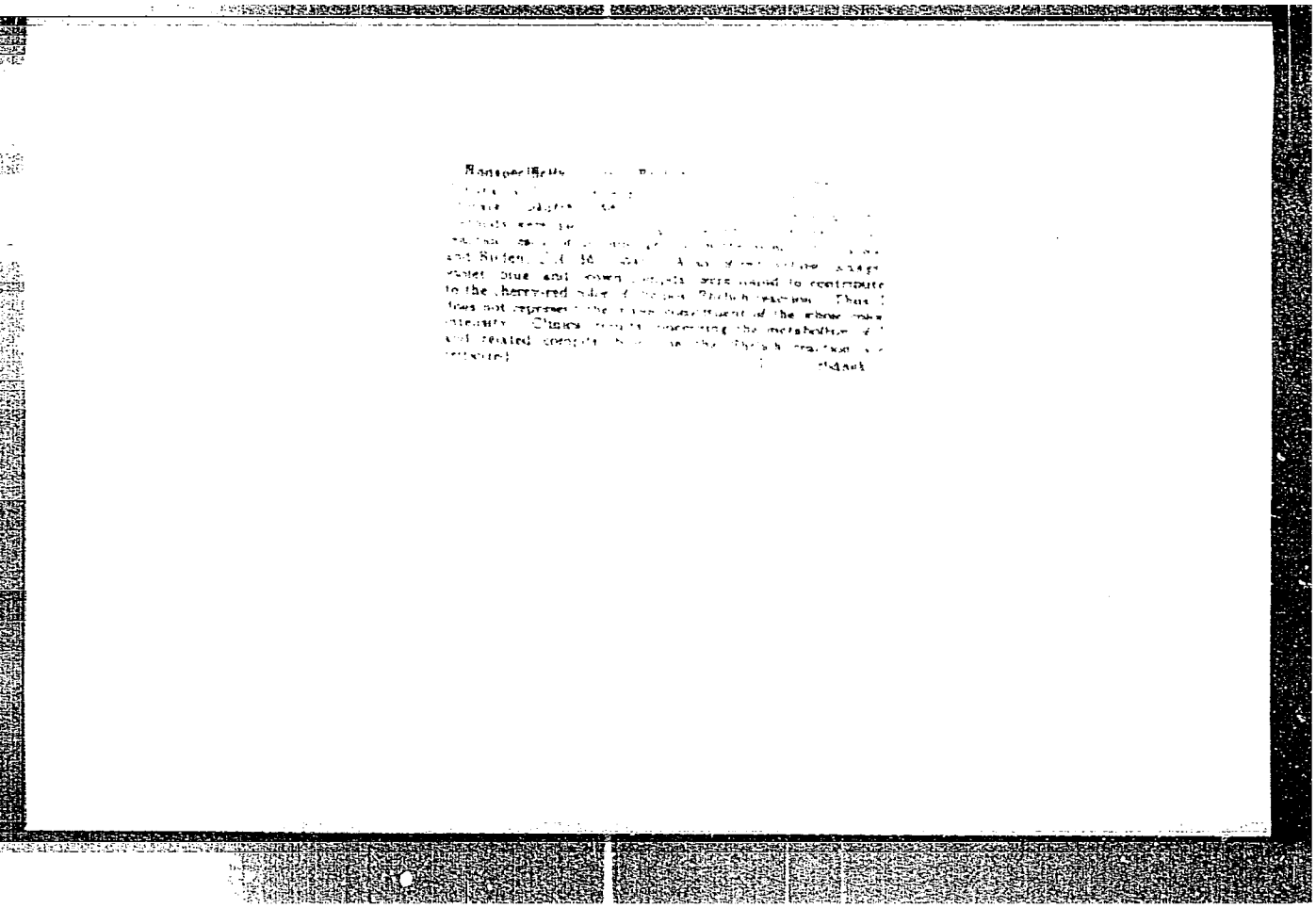

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1

KANDRAC, M.; KOSTIR, J.; KASPAROVA, J.; TICHY, J.

Reduction of progesterone in the organism. II. Methyl ketones (pregnenolones) in pregnancy. Cas. lek. cesk. 93 no.7:161-163 12 Feb 54.

1. Z III. interni kliniky Karlovy univ. v Praze (predn. prof. Dr. J. Charvat) a z Biochemickeho ustavu KU v Praze predn., doc. Dr. J. Kostir.

(PREGNANCY, urine in, pregnenolone.)
(URINE, pregnenolone in pregn.)
(PREGNENOLONE, in urine, in pregn.)

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1

KOSTIR, J.; JINDRA, A.; HRABETOVA, E.

Metalloproteins. I. Inhibition of ascorbase with demercaptopropanol. Cesk. farm. 4 no.1:17-20 Jan 55.

1. Z biochemickeho ustavu university Karlovy.
(OXIDASES,
ascorbase, inhib. with BAL)
(DIMERCAPROL, effects,
ascorbase inhib.)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1

KOSTIR, J.V.; JIRACEK, V.

Alkaloids and dyes of Ustilago maydis. Cesk.farm. 4 no.3:134-136 Apr 55.

1. Z biochemickeho ustavu Karlovy university v Praze.
(ALKALOIDS,
of Ustilago maydis, separation, chromatography)
(DYES,
in Ustilago maydis, chromatography)
(CHROMATOGRAPHY,
alkaloids & dyes of Ustilago maydis)
(PLANTS,
Ustilago maydis, separation of alkaloids & dyes, chromatography)

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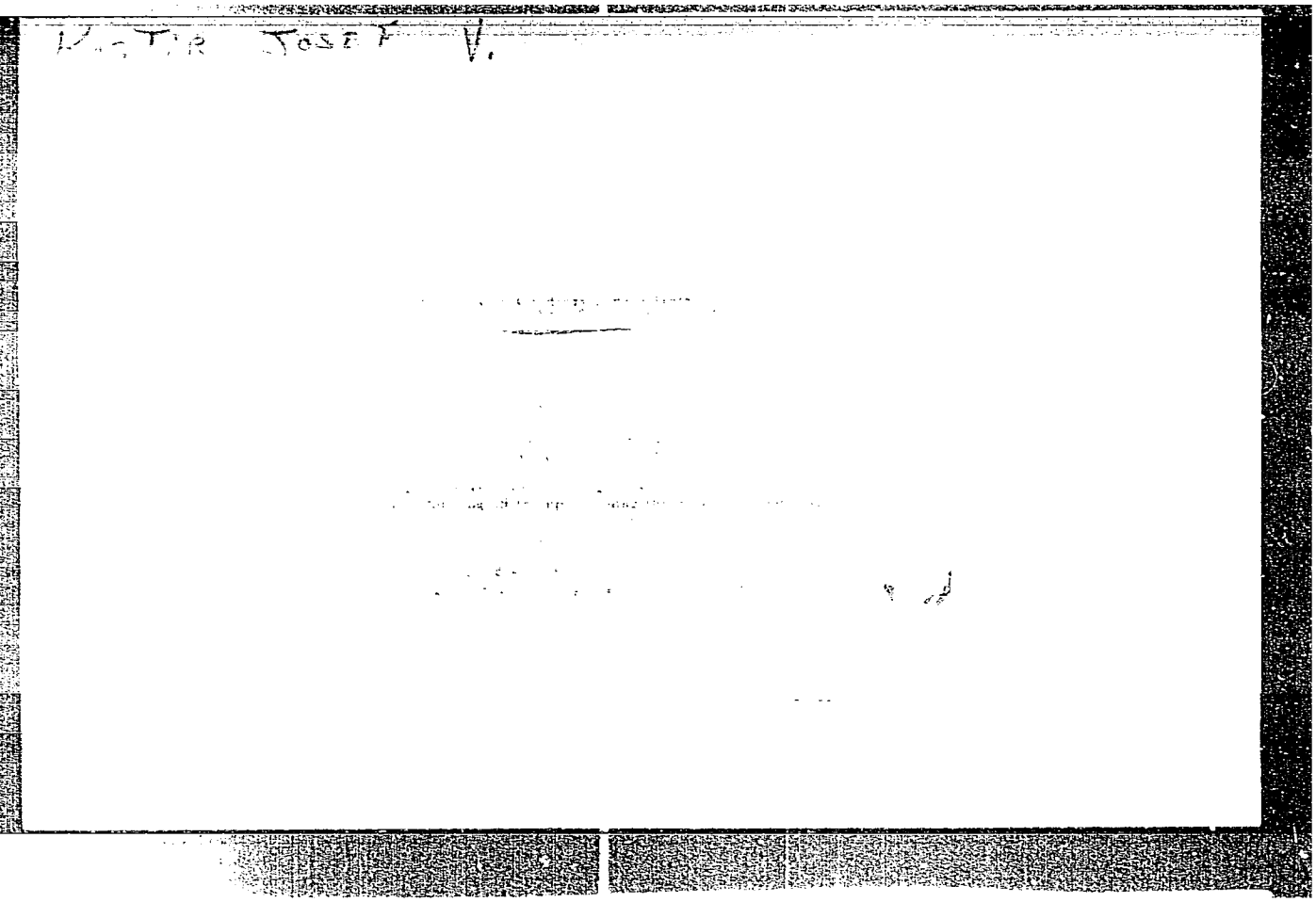

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1

CZECHOSLOVAKIA / Human and Animal Physiology. Growth Physiology. T

Abs Jour: Ref Zhur-Biol., No 9, 1958, 40917.

Author : Kostir, J.
Inst : Not Given.
Title : Biochemistry of Aging.

Orig Pub: Vesmir, 1956, 35, No 9, 295-296.

Abstract: Some biochemical peculiarities of the young and aged organism are considered, mainly the relationship between ana- and catabolic processes.

Card 1/1

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010

KOSTIR, J.

Aphins.

P. 54, (Chemie, Vol. 9, no. 1, Apr. 1957, Praha, Czechoslovakia)

Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 2, February 1958

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1

KOSTIR, J.

Biologic methylation and transmethylation.

P. 91 (Chemie, Vol. 9, no. 1, Apr. 1957, Praha, Czechoslovakia)

Monthly Index of East European Accessions (EFAI) LC. Vol. 7, no. 2, February 1958

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1

KOSTIR, J.

"Biochemistry of plant movements.

p. 722 (Chemie, Vol. 9, no. 5, Nov. 1957)

Monthly Index of East European Accessions (EEAI) LC,Vol. 7, No. 6, June 1958

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1

DOBIASOVA, L.; KOSTIR, J.

Our experiences with the so-called Akerfeldt reaction in psychosis. Cesk. psychiat. 53 no.6:395-397 Dec 57.

1. Psychiatricka klinika KU a Biochemicky ustav matematicko-fysikalni fakulty v Praze. L. D., Praha 2, Ke Karlovu 11.
(SCHIZOPHRENIA, diag.
Akerfeldt test (Cz))

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1

KOSTIR, J.

(22) 272

Prague, Chemicke Listy, Vol 56, No 4, April 1962

1. "The Chemistry of Trans-Curium Elements," Miroslav KRIVANEK of the Joint Nuclear Research Institute [original-language version not given] in Dubna, USSR; and Miroslav KEPS, formerly of the A. Zapotocky Military Academy (Vojenska Akademie A. Zapotockeho) in Brno, present address: the CSAV [Ceskoslovenska Akademie Ved; Czechoslovak Academy of Sciences] Nuclear Research Institute (Ustav jaderneho vyzkumu) in Rez near Prague; pp 361-368.

2. "Induced Reactions in Analytical Chemistry," by Z. H.; pp 369-371.

3. "Application of Organic Reagents in Amperometric Titrations of Certain Rare Elements," F. VYDRA (affiliation not given); pp 372-375.

4. "Determination of the Permeability of Foils for Sulphur Dioxide," Josef [illegible] and Ladislav [illegible] of the Packaging Institute (Obalovy ustav), Prague; pp 376-382.

5. "Measurement of the Efficiency of Flotation Foaming Agents," Petr [illegible] and Jan KLOCHEK, CSAV Institute of Geochemistry and Mineral Raw Materials (Ustav geochemie a nerostnych surovin), Prague; pp 382-389.

6. "Peristaltic Pump for Dosing Small Quantities of Polluted Liquids," Jiri [illegible], CSAV Polarographic Institute (Polarograficky ustav), Prague; pp 389-391.

7. "Cells for the Near Infra-Red Region, Suitable for the UR-10 Spectrophotometer," Josef [illegible] and Ivo [illegible], CSAV Institute of Physical Chemistry (Ustav fysikalni chemie), Prague; pp 392-393.

8. Briefs; pp 394-405.

9. Book reviews; pp 406-413.

10. "About Publishing. Part II. Forms of Publications," J. SKODA and M. KRAUS (affiliations not given); pp 415-417.

11. "Comments on the Teaching of Biochemistry at the Natural Sciences Faculties," L. KOVAC (affiliation not given); pp 417-420.

12. "The 1961 Nobel Prize for Chemistry," J. KOSTIR (affiliation not given); p 421.

13. "Report on the 24 November 1961 Session of the Central Committee of the Czechoslovak Chemical Society within the CSAV," unsigned; pp 422-426.

— 1/2 —

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1

KOSTIR, Josef

"Handbook of biochemistry for physicians and naturalists" by Peter Karlson. Reviewed by Josef Kostir. Chem prum 12 no.4:207 Ap '62.

1. Karlova universita.

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1

KOSTIR, Josef, prof., RNDr.; VALENTA, Miloslav, inz., CSc.

Determination of indole derivatves in natural materials. Pt.5. Rost vyroba 9 no.9:981-988 S'63.

1. Katedra biochemie, Karlova universita, Praha; Vyzkumny ustav zivocisne vyroby, laborator biologie rozmnozovani, Libechov.

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1

KOSTYRKO, O.S. [Kostyrko, O.S.]

Flocs in steel. Analele metalurgie 16 no.1:183-188 Ja-Mr '62.

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1

GRIGORYAN, A.V.; VOL'-EPSHTEYN, G.L.; KOSTISHCHEV, V.K.

Lung cancer in primary multiple cancer cases. Vop. onk. 11 no.4:104-109 '65. (MIRA 18:8)

1. Iz kafedry obshchey khirurgii lechebnoy fizkul'tury 1-go Moskovskogo ordena Lenina meditsinskogo instituta imeni I.M.Sechenova (zav. - chlen-korrespondent AMN SSSR prof. V.I.Struchkov).

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1

KOSTISHIN, M.T.; SHISHLOVS'KIY, O.A.

Simultaneous determination of the thickness and refractive index of thin layers by means of the "MII-1" microinterferometer. Nauk. zap.Kiev.un. 15 no.5:27-35 '56. (MIRA 10:7)
(Interferometry)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1

KOSTISHIN, M.T. [Kostyshyn, M.T.]

Determining the order of interference in the region of strong dispersion and elimination of the phase shift effect in the interference method of measuring dispersion. Visnyk Kyiv.un.no.2. Ser.fiz.ta khim. no.1:11-15 '59. (MIRA 14:8)
(Interference (Light)) (Dispersion)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1

KOSTISHIN, M.T. [Kostyshyn, M.T.]

Determining the relative shape of the dispersion curve in the region of the absorption zones. Visnyk Kyiv.un.no.2.Ser.fiz.ta khim. no.1:17-20 '59. (MIRA 14:8)

(Dispersion)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1

MOLOTKOVSKIY, G.Kh. [Molotkovs'kyi, H.Kh.]; KOSTISHIN, S.S. [Kostyshyn, S.S.]

Integrity and polarity of the heterotic hybrid corn (Zea mays L.) Bukovinskii 1,2.3. Ukr. bot. zhur. 22 no.3:11-18 '65.
(MIRA 18:7)

1. Chernovitskiy gosudarstvennyy universitet, kafedra fiziologii rasteniy.

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1

KOSTITCH, D.

Phlebotominae of the southern part of Serbia and their blood meal.
Bull.Acad.serbe sc.,classe med. 11 no.2:32-33 1954.
(FLIES,
Phlebotominae, blood meal)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1

KOSTITSINA K.P.

SKOBETS, Ye.M.; ABARBARCHUK, I.L.; KOSTITSINA, K.P.; BELINSKAYA, N.I.

Polarographic soil analysis. Determining the intake capacity of soils. Pochvovedenie no.1:99-105 Ja '58. (MIRA 11:2)
(Soils--Analysis)
(Polarography)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1

KOSTITSYN, V.N.

General groups of elements of two involutions of higher orders and steps defined on a single unicursal carrier. Uch. zap. MOPI 123:459-463 '63.

m-Hyperhedra circumscribed about a unicursal curve of the r-th class in n-dimensional space. Ibid.:465-468 (MIRA 17:4)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1

KOSTITSYNA, K.P.; SKOBETS, Ye.M.

Polarographic determination of aluminum in alloys. Zav. lab. 29 no.9:1059 '63. (MIRA 17:1)

1. Ukrainskaya sel'skokhozyaystvennaya akademiya.

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1

ABARBARCHUK, I.L.; KOSTITSYNA, K.P.; SKOBETS, Ye.M.

Polarographic determination of exchangeable aluminum in soils.
Pochvovedenie no.2:114-116 F '62. (MIRA 15:3)

1. Ukrainskaya akademiya sel'skokhozyaystvennykh nauk.
(Soils--Aluminum content)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1

BULATOVA, Z.I.; VOYTSEL', Z.A.; GOHBOVETS, A.N.; IVANOVA, Ye.A.; KAZ'MINA, T.A.; KISEL'MAN, E.N.; KLIMKO, S.A.; KLIMOVA, I.G.; KOZYREVA, V.F.; KORNEVA, F.R.; KOSTITSINA, R.P.; KRUGLOVA, Z.M.; STRIZHOVA, A.I.; MARKOVA, L.G.; TARASOVA, A.S.; USHAKOVA, M.V.; FILIPPOVA, Ye.A., ved.red.; TROFIMOV, A.V., tekhn.red.

[Mesozoic and Cenozoic stratigraphy of the West Siberian Lowland] Stratigrafiia mezozoia i kainozoia Zapadno-Sibirskoi nizmennosti. Moskva, Gos.nauchno-tekhn.izd-vo neft. i gorno-toplivnoi lit-ry, 1957. 147 p. (MIRA 12:2)

1. Gosudarstvennyy soyuznyy Zapadno-Sibirskiy nefterazvedochnyy trest.

(Siberia, Western--Geology, Stratigraphic)

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1

KOSTITSKIY, G.I.

Effect of a substituted charge fired from a shotgun. Sud.-med. ekspert. 2 no.1:56-57 Ja-Mr '59. (MIRA 13:4)

1. Mogilevskoye oblastnoye byuro sudebnomeditsinskoy ekspertizy (nachal'nik M.M. Tkach).
(GUNSHOT WOUNDS)

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1

SYTSKO, P.A.; TITOV, S.A.; KOSTITSKIY, I.V.; KUCHERENKO, V.S.; MATVIYENKO, B.N.

Beginning made by the Orsha track workers. Put' i put. khoz. no.9: 5-8 S '58. (MIRA 11:9)

1. Nachal'nik otdeleniya dorogi st. Orsha (for Sytsko). 2. Nachal'nik distantsii puti st. Orsha (for Titov). 3. Nachal'nik vagonnogo uchastka st. Orsha (for Kostitskiy). 4. Nachal'nik parovoznogo depo st. Orsha (for Kucherenko). 5. Nachal'nik energeticheskogo otdela st. Orsha (for Matviyenko).
(Orsha--Railroads--Track)

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1

24434 KOSTITSYN, L. T. K voprosu o kholesteatomakh prilatochnykh pazukh nosa. Trudy Glav. voyen. Gos-pitalya Vooruzh. Sil SSSR im. Akad. Burdenko. VIP. 6. M., 1949, S. 296-301.

SO: Letopis, No. 32, 1949.

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1

KOSTITSYN, L.T. (Moskva)

Giant styloid process. Vest.otorin. 18 no.2:77 Mr-Ap '56. (MLRA 9:7)
(TEMPORAL BONE--ABNORMITIES AND DEFORMITIES)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1

KOMISSAROV, A.N., kand.med.nauk; KOMISSAROVA, N.Ye.; KOSTITSYN, L.T., kand. med.nauk

Sequence of reactive changes in the blood exposed to ionizing radiation. Terap.arkh. 31 no.8:3-12 Ag '59. (MIRA 12:11)

1. Iz Glavnogo voyennogo gospitalya imeni N.N. Burdenko (nauchnyy rukovoditel' raboty - chlen-korrespondent AMN SSSR prof. N.A. Kurshakov).
(BLOOD radiation effects)

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1

Kostitsyn, V.T. (Deceased)

8.7

25(2) PHASE I BOOK EXPLOITATION SOV/2563

Akademiya nauk SSSR. Institut mashinovedeniya. Seminar po teorii mashin i mekhanizmov

Trudy, tom 18, vyp. 71 (Transactions of the Institute of Mechanical Engineering, Academy of Sciences, USSR. Seminar on the Theory of Machinery and Mechanisms, Vol 18, No. 71) Moscow, Izd-vo AN SSSR, 1958. 89 p. Errata slip inserted. 2,500 copies printed.

Ed. of Publishing House: M.L. Dobshits; Tech. Ed.: N.F. Yegorova; Editorial Board: I.I. Artobolevskiy, Academician (Resp. Ed.); G.G. Baranov, Doctor of Technical Sciences, Professor; V.A. Gavrilenko, Doctor of Technical Sciences, Professor; V.A. Zinov'yev, Doctor of Technical Sciences, Professor; A.Ye. Kobrinskiy, Doctor of Technical Sciences; N.I. Levitskiy, Doctor of Technical Sciences, Professor; N.P. Rayevskiy, Candidate of Technical Sciences; L.N. Reshetov, Doctor of Technical Sciences, Professor; and M.A. Skuridin, Doctor of Technical Sciences, Professor.

PURPOSE: This collection of articles is intended for scientific research workers and engineers.

Card 1/4

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1

Transactions (Cont.) SOV/2563

COVERAGE: This collection of articles deals with the following topics: thread control in textile machines, pneumatic devices with diaphragms, resonance in centrifugal pumps, the dynamics of electrically driven machinery, synthesis of four-link transmission mechanisms, and the design of link mechanisms. No personalities are mentioned. References follow several of the articles.

TABLE OF CONTENTS:

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1

Examples of the calculations involved are presented.

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1

Transactions (Cont.)

SOV/2563

Volume I, Number 67, 1957, under the same title. Methods developed in the first part are applied to the synthesis of the slider-crank mechanism.

Grodzenskaya, L.S. Design of Linkage Mechanisms for a Given Time of Dwell of the Follower Link

Methods for designing link mechanisms with a dwell in the extreme position (Chebyshev mechanisms) are discussed. 69

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1

KOSTITSYN, Yu.S.

The "shoe symptom" - an easily detectable sign of sweat secretion disorders in endarteritis obliterans. Vrach. delo no.1:75-76 Ja '62. (MIRA 15:2)

1. Khirurgicheskoye otdeleniye Krasnokutskoy rayonnoy bol'nitsy Khar'kovskoy oblasti.
(ARTERIES--DISEASES) (SWEAT GLANDS--DISEASES)

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1

KOSTITSYNA, K.P.

5

The viscosity of the system titanium tetrachloride–bromine. L. L. Abartarchuk and K. P. Kostitsyna (Agr. Inst., Kiev). *Ukrain. Khim. Zhur.* 19, 618–21(1953).—Viscosity measurements at 20° indicate the existence of $2TiCl_4.Br_2$, which decomp. at higher temp. Cryoscopic studies of the system in $PhNO_2$ do not indicate the existence of compds. H. M. Leicester

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1

KOSTIUKOW, Jurij M.

Geological mapping of Wielka Swistowka and the Mulowy and Litworowy Hollows. Acta geol Pol 13 no.2:223-238 '63.

1. Laboratory of Geological Mapping, University, Warsaw.

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1

KOSTIENKO, A. I.

Dissertation: "Investigation of the Superhigh-Frequency Electronics of a Triode Amplifier." Cand Phys-Math Sci, Moscow Order of Lenin State U imeni M. V. Lomonosov, 16 Jun 54. (Vechernyaya Moskva, Moscow, 7 Jun 54)

SO: SUM 318, 23 Dec 1954

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1

KHARKEVICH, Aleksandr Aleksandrovich; KOSTIYENKO, A.I., redaktor; TUMARKINA, N.A., tekhnicheskiy redaktor

[Nonlinear and parametric phenomena in radio enegineering] Nelineinye i parametricheskie iavleniia v radiotekhnike. Moskva, Gos. izd-vo tekhniko-teoret. lit-ry, 1956. 184 p. (MLRA 10:1)
(Radio circuits)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1

GVOZDOVER, Samson Davidovich; KOSTIYENKO, A.I., redaktor; TUMARKINA, N.A., tekhnicheskiy redaktor

[Theory of ultra-high frequency electronic apparatus] Teoriia elektronnykh priborov sverkhvysokikh chastot. Moskva, Gos. izd-vo tekhniko-teoret. lit-ry, 1956. 527 p.
(Electron tubes) (MLRA 9:11)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1

KOSTIYENKO, A.I.

Investigation of the electron conductivity of plane electrode tubes. Radiotekh.i elektron. 1 no.6:809-813 Je '56. (MLRA 10:1)

1. Fizicheskiy fakul'tet Moskovskogo Gosudarstvennogo universiteta.
(Amplifiers, Electron-tube)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1

VISHENCHUK, Igor' Mikhailovich; SOGOLOVSKIY, Yevgeniy Panteleymonovich; SHVETSKIY, Bentsion Yosifovich; KARANDEYEV, K.B., red.; KOSTIYENKO, A.I., red.; MURASHOVA, N.Ya., tekhn.red.

[The electron-beam oscillograph and its use in measuring] Elektronno-luchevoi ostsillograf i ego primenenie v izmeritel'noi teknnike. Pod red. K.B.Karandeeva. Moskva, Gos.izd-vo tekhniko-teoret.lit-ry, 1957. 220 p. (MIRA 10:12)
(Cathode ray tubes) (Measuring instruments)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1

KOSTIYENKO, A. I.

KHARKEVICH, Aleksandr Aleksandrovich; KOSTIYENKO, A.I., red.; GAVRILOV, S.S., tekhn.red.

[Spectra and analysis] Spektry i analiz. Izd. 3-e, perer. Moskva, Gos. izd-vo tekhniko-teoret. lit-ry, 1957. 236 p. (MIRA 11:2)
(Spectrum analysis)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1

KOSTIYENKO, A.I.

KHARKEVICH, Aleksandr Aleksandrovich; KOSTIYENKO, A.I., red.; GAVRILOV, S.S., tekhn.red.

[Theoretical elements of radio communication] Teoreticheskie osnovy radiosviazi. Moskva, Gos. izd-vo tekhniko-teoret. lit-ry, 1957. 347 p. (MIRA 11:3)
(Radio)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1

LEBEDEV, Vsevolod Leonidovich; RYTOV, S.M., prof., retsenzent; YAGLOM, A.M., doktor fiz.-mat.nauk, retsenzent; KOSTIYENKO, A.I., kand.fiz.-mat. nauk, red.; AKHLAMOV, S.N., tekhn.red.

[Random processes in electric and mechanical systems] Sluchainye protsessy v elektricheskikh i mekhanicheskikh sistemakh. Moskva, Gos.izd-vo fiziko-matem.lit-ry, 1958. 176 p. (MIRA 12:2)
(Probabilities)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1

KOSTIYENKO A. I.

109-1-12/18

AUTHORS: Gvozdover, S.D., Kostiyenko, A.I., Lyubimov, G.P.

TITLE: Experimental Study of the Mutual-Synchronous Operation of the Reflex Klystrons of the 3-cm Waveband (Eksperimental'noye izucheniye vzaimno-sinkhronnoy raboty otrazhatel'nykh klistronov trekhsantimetrovogo diapazona)

PERIODICAL: Radiotekhnika i Elektronika, 1958, Vol.III, Nr 1, pp.105-111 (USSR)

ABSTRACT: Mutual synchronisation of the reflex klystrons can be explained with reference to Fig.1, which represents the output power p and the frequency f of two klystrons as a function of the voltage applied to the reflector. One of the klystrons operates at a frequency somewhat lower than the other, but the difference is such that while the output power of one of the klystrons decreases, that of the other increases. Consequently, it is possible to obtain an almost constant output power over the whole range between the two "steady state" klystron frequencies. Furthermore, the resulting output frequency can be made a linear function of the reflector voltage. The phenomenon was investigated experimentally by means of the equipment shown in the block schematic of Fig.2. The equipment consisted of:

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Experimental Study of the Mutual-Synchronous Operation of the Reflex Klystrons of the 3-cm Waveband

(1) klystron outputs, (2) attenuators, (3) waveguide junctions, (4) a T-junction, (5) an impedance transformer, (6) a waveguide-cable transformer, (7) a detector head, (8) a load, (9) 2 klystrons, (10) a wavemeter, (11) a spectrum analyser, (12) an amplifier, (13) an oscillograph, (14) a sawtooth voltage generator, (15) a switch and, (16) klystron power supply. The experimental output power and frequency curves as a function of the reflector voltage are shown in Figs.3a and 3b. It was found that the klystrons can be operated under several different modes; some of these are characterised by the absence of mutual synchronisation while others may lead to the appearance of beats. It was found, for example, that the synchronous regime could be obtained if the reflector voltage was varied by ±5 V. Some experimental work was carried out on 3 and 5 klystrons operating with a common load. The power and frequency response of the 3-klystron system are shown in Fig.7 while the power response of the 5-klystron system

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is illustrated in Fig.3. From the above it is concluded that the 3-klystron system can be used in practical applications, whereas the systems employing a larger number of klystrons appear impractical. There are 8 figures and 2 Russian references.

ASSOCIATION: Physics Faculty of the Moscow State University, im. M. V. Lomonosov (Fizicheskiy fakul'tet Moskovskogo Gosudarstvennogo universiteta im. M. V. Lomonosova)

SUBMITTED: December 7, 1956

AVAILABLE: Library of Congress

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1

KOSTIYENKO A. I.

AUTHORS: Kostiyenko, A.I., Lyubimov, G.P. 109-1-13/18

TITLE: The Influence of a Load on the Mutual-Synchronous Operation of 2 Reflex Klystrons (Vliyaniye nagruzki na vzaimno-sinkhronnuyu rabotu dvukh otrazhatel'nykh klistronov)

PERIODICAL: Radiotekhnika i Elektronika, 1958, Vol.III, Nr 1, pp.112-115 (USSR)

ABSTRACT: The effect was investigated experimentally by means of the equipment shown in Fig.1, p.112. This consisted of : (1) two klystron heads, (2) attenuators, (3) a T-junction, (4) an impedance transformer, (5) an output section (to the wavemeter), (6) an output section to a spectrum analyser, (7) a power indicator and (8) a dummy antenna. Two types of measurements were carried out. In the first case the input impedance of the load was strongly dependent on frequency; the impedance curve is given in Fig.2B. The output power curve and the output frequency curve as a function of the reflector voltage are shown in Figs.2a and 2b respectively. When the load was less frequency dependent (as is shown in Fig.3B) the output power and the frequency curves as a function of the reflector voltage were in the form shown in Figs.3A and b respectively. From the above it is seen that the power output and

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The Influence of a Load on the Mutual-Synchronous Operation of 2 Reflex Klystrons

the effective synchronous tuning bandwidth of the two klystrons is dependent on the load impedance; if the impedance-frequency characteristic of the load is constant, the output frequency is almost a linear function of the reflector voltage and the output power is constant over an appreciable band of frequencies. The authors express their gratitude to M. A. Drozdova and A. A. Lebed' for their help in this work. There are 3 figures, 1 table, and 1 Russian and 1 English reference.

ASSOCIATION: Chair of Radio Engineering of the Physics Faculty of the Moscow State University im. M. V. Lomonosov (Kafedra radiotekhniki fizicheskogo fakul'teta Moskovskogo gosudarstvennogo universiteta im. M. V. Lomonosova)

SUBMITTED: January 23, 1957

AVAILABLE: Library of Congress

Card 2/2

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1

06509
SOV/141-58-4-25/26

AUTHORS: Kostiyenko, A.I., Devyatkov, M.N. and Lebed', A.A.

TITLE: Electronic Detection at Ultrahigh Frequencies (Elektronnoye detektirovaniye na sverkhvysokikh chastotakh)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Radiofizika, 1958, Nr 4, pp 168-170 (USSR)

ABSTRACT: The work reported deals with the possibility of the detection of ultrahigh frequency signals by means of reflex klystrons. An experimental investigation was carried out on glass tubes types K-11 and K-26, operating at wavelengths to $\lambda \approx 10$ cm and $\lambda \approx 3$ cm. The detection was achieved by separating the grids of the klystron resonators and by applying to them various positive potentials. This arrangement permitted the obtaining of various potential distributions in the interaction space and in the reflector space of the klystrons. The experimental system employed is illustrated in Fig 1, while its potential distributions are shown in Fig 2. The detector curves are shown in Fig 3 and 4. Fig 3 illustrates the detector current ΔI_o and the reflector

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1

SVIRIDOV, Vladimir Timofeyevich; KOSTIYENKO, A.I., red.; GAVRILOV, S.S., tekhn.red.

[Radio relay lines] Radioreleinye linii sviazi. Moskva, Gos.izd-vo fiziko-matem.lit-ry, 1959. 78 p. (MIRA 12:10)
(Radio relay systems)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1

VISHENCHUK, Igor' Mikhaylovich; SOGOLOVSKIY, Yevgeniy Panteleymonovich; SHVETSKIY, Bentsion Iosifovich; KARANDEYEV, K.B., red.; KOSTIYENKO, A.I., red.; MURASHOVA, N.Ya., tekhn.red.

[Cathode-ray oscillograph and its use for measuring] Elektronno-luchevoi ostsillograf i ego primenenie v izmeritel'noi tekhnike. Pod red. K.B.Karandeeva. Moskva, Gos.izd-vo fiziko-matem.lit-ry, 1959. 220 p. (MIRA 12:4)
(Cathode ray oscillograph)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1

SHEVCHIK, Vladimir Nikolayevich; KOSTIYENKO, A.I., red.; MASHAROVA, V.G., red.; SMURCV, B.V., tekhn.red.

[Osnovy elektroniki sverkhvysokikh chastot] Osnovy elektroniki sverkhvysokikh chastot. Pod red. A.I.Kostienko. Moskva, Izd-vo "Sovetskoe radio," 1959. 306 p. (MIRA 12:3)
(Electronics)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1

SOV/109-59-4-2-20/27

AUTHOR: Kostiyenko, A.I.

TITLE: A Method of Measuring the Electron Admittances of Flat-Electrode Tubes (Ob odnom metode izmereniya elektronnykh provodimostey ploskoelektrodnykh lamp)

PERIODICAL: Radiotekhnika i Elektronika, 1959, Vol 4, Nr 2, pp 313-320 (USSR)

ABSTRACT: The equipment used in the measurements of the electron admittances of U.H.F. tubes is shown diagrammatically in Fig 1. In this, the inter-electrode gap to be investigated is placed between two sections of the centre conductor of a co-axial line; this is illustrated in detail in Fig 2. The U.H.F. power from a generator is fed to the investigated inter-electrode gap. The input admittance of the line section following the gap is determined by measuring: (a) the characteristics of the line section between the measuring line and the investigated gap; (b) the admittance of the gap itself and (c) the position of the plunger (see Fig 2) with respect to the gap. The equipment is particularly suitable for measuring the admittances of klystrons and

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A Method of Measuring the Electron Admittances of Flat-Electrode Tubes

lighthouse tubes as shown in Fig 2. The measured tube can be represented by means of an equivalent quadripole. It is shown that the characteristic equation of the quadripole is in the form of Eq (15), where Δx_2 is displacement of the shorting plunger from its rest position, $l_{э\phi}$ is the effective length of the non-homogenous section of the line (between cross-sections C D and A'B'), λ is the wavelength, $\beta = 2\pi/\lambda$; Z_{o2} is the wave impedance of the plunger line section, while X_{11} and X_{22} are the equivalent parameters of the quadripole in a passive state (without an electron beam). The remaining symbols of Eq (15) are defined on pp 316 and 317. The impedance of the inter-electrode gap in a "hot" tube is expressed by Eq (16), where $R_э$ and $X_э$ are the resistance and the reactance components of the electron impedance of the gap. This impedance is expressed by Eq (17). From the above it is seen that the impedance or the admittance (see Eq (18)) of a tube can be evaluated from the measured values of the input admittances. The parameters of the equivalent

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A Method of Measuring the Electron Admittances of Flat-Electrode Tubes

quadripole can be determined by displacing the plunger and determining the dependence of the position of the standing wave node on the position of the plunger. These measurements are plotted in the form of curves and straight lines, as functions of Δx or $ctg\beta\,\Delta x$. From the curves it is possible to determine the effective length of the section, while from the straight lines it is possible to evaluate the quantities expressed by Eq (19) and (20); from these in turn it is possible to determine the two parameters of the quadripole. There are 2 figures and 3 references of which 1 is Soviet, 1 English and 1 German.

SUBMITTED: 17th April 1957

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1

SOV/109- -4-3-19/38

AUTHORS: Kostiyenko A.I., Devyatkov M.N., and Lebed' A.A.

TITLE: Use of the Virtual Cathodes for the Detection at Ultra-High Frequencies (Ob ispol'zovanii virtual'nykh katodov dlya detektirovaniya na sverkhvysokikh chastotakh)

PERIODICAL: Radiotekhnika i Elektronika, 1959, Vol 4, Nr 3, pp 482-488 (USSR)

ABSTRACT: The problem was investigated experimentally. The circuit employed is shown in Fig 1; a constant potential U_1 was applied to the accelerating grid and to the first grid of the interaction gap; a potential U_2 was applied to the second grid of the interaction gap, and a potential U_o was injected into the interaction gap. By adjusting potentials U_1 and U_2, two virtual cathodes can be formed inside the tube, as is illustrated in Fig 2. The experiments were carried out at wavelengths of 10 - 3 cm. At the 10 cm wave the UHF power was fed to the klystron by means of a cavity resonator as shown in Fig 3a. At the 3 cm wave the UHF power was fed by means of a rectangular waveguide; this is shown in Fig 3b. The measured results are shown graphically in Figs 4 - 8. Fig 4 represents the dependence of the

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reflector current I_o on the reflector voltage U_o for $U_o > o$. The figure illustrates also the increase of the reflector current ΔI_o due to the ultrahigh frequency signal. The dependence of I_o and ΔI_o on the potential of the accelerating grid is illustrated in Fig 8. From the above experiments it is concluded that the use of the virtual cathodes for the purpose of the detection is quite feasible. The best results are obtained when the virtual cathode effect is very small. The detection mechanism at the 3 cm wave is almost identical with that at the 10 cm wave. The authors express their gratitude to S.D. Gvozdover for valuable advice and his interest in this work. Acknowledgement is also made to M.A. Drozdova and V.G. Titov for their help in carrying

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SOV/109- - -4-3-19/38

Use of the Virtual Cathodes for the Detection at Ultrahigh Frequencies

out the experiments.
There are 8 figures and 2 Soviet references.

ASSOCIATION: Fizicheskiy Fakul'tet Moskovskogo Gosudarstvennogo Universiteta imeni M.V. Lomonosova
(Physics Department of Moscow State University imeni M.V. Lomonosov)

SUBMITTED: September 6, 1957

Card 3/3

ERGLIS, Kronid Eduardovich; STEPANENKO, Igor' Pavlovich; KOSTIYENKO, A.I., red.; AKHLAMOV, S.N., tekhn. red.

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-

[Electronic amplifiers] Elektronnye usiliteli. Moskva, Gos. izd-vo fiziko-matem. lit-ry, 1961. 487 p. (MIRA 14:7)
(Amplifiers, Electron-tube)

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1

SOMINSKIY, Monus Samuilovich; KOSTIYENKO, A.I., red.; YERMAKOVA, A.I., tekhn. red.;

[Semiconductors] Poluprovodniki. Moskva, Gos. izd-vo fiziko-matem. lit-ry, 1961. 414 p. (MIRA 15:2)
(Semiconductors) (Transistors)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1

SANIN, Aleksey Aleksandrovich; KOSTIYENKO, A.I., red.; KRYUCHKOVA, V.N., tekhn. red.

[Electronic devices in nuclear physics] Elektronnye pribory iadernoi fiziki. Moskva, Gos. izd-vo fiziko-matem. lit-ry, 1961. 615 p. (MIRA 14:12)

(Nuclear physics--Electronic equipment)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1

KHARKEVICH, Aleksandr Aleksandrovich; KOSTIYENKO, A.I., red.;
GAVRILOV, S.S., tekhn. red.

[Spectra and analysis] Spektry i analiz. Izd.4. Moskva, Gos. izd-vo fiziko-matem. lit-ry, 1962. 236 p. (MIRA 15:6)
(Spectrum analysis)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1"

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S/109/62/007/002/017/024
D266/D303

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AUTHORS: Kostiyenko, A.I., and Pirogov, Yu.A.

TITLE: Interaction between an electron beam and a higher order waveguide mode in a large planar gap

PERIODICAL: Radiotekhnika i elektronika, v. 7, no. 2, 1962, 332 - 338

TEXT: The aim of the paper is to analyze the interaction between an electron beam and an H_{11} mode in a rectangular waveguide. The bottom and top plates of the waveguide contain the grids c_1 and c_2 which are at the potential U_1 and U_2 respectively. If sufficient amount of space charge is present the d.c. potential distribution has a minimum somewhere between the grids. Accordingly the authors approximate this potential distribution by a parabola

$$u(x) = px^2 - qx + c \qquad (1)$$

which means a linear variation in electric intensity. Assuming that

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the diameter of the electron beam is considerably smaller than the dimensions of the waveguide the y dependence of the electric field is negligible and only the x dependence

$$E_x\big|_{y=a/2} = E_{10} \cos \frac{\pi}{b} x \qquad (4)$$

is taken into account. Approximating (4) by a straight line the equation of motion for an electron is obtained as follows

$$\frac{d^2x}{dt^2} = a_o^2 x - \frac{eq}{m} + \mu \frac{eq}{m} (\zeta x - 1) \sin (\omega t + \varphi) \qquad (8)$$

where e, m - electron charge and mass, φ - phase angle, $\zeta = 2/b$, $a_o^2 = 2 \frac{e}{m} p$, $\mu = 4E_{10}/\pi q$. Since $\mu \ll 1$ (valid under small signal conditions) it is convenient to write the solution of the differential equation in the following form

$$x(t) = x^{(0)}(t) + \mu x^{(1)}(t) + \mu^2 x^{(2)}(t) + \ldots$$

Card 2/4

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Interaction between the electron ...

magnetic signals. There are 3 figures and 3 Soviet-bloc references.

ASSOCIATION: Fizicheskiy fakul'tet Moskovskogo gosudarstvennogo universiteta im. M.V. Lomonosova, Kafedra radiotekhniki (Physics Faculty of Moscow State University im. M.V. Lomonosov, Department of Radioengineering)

SUBMITTED: June 8, 1961

Card 4/4

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1

9,4230

S/109/62/007/005/009/021
D266/D307

AUTHORS: Devyatkov, M.N., Kostiyenko, A.I., and Myasoyedov, Ye. Ya.

TITLE: Travelling wave tubes as UHF detectors and mixers

PERIODICAL: Radiotekhnika i elektronika, v. 7, no. 5, 1962, 838 - 843

TEXT: The purpose of the paper is to investigate experimentally the detector and mixer properties of ordinary low power travelling wave tubes in the 10 cm and 3 cm range. The input signal (and the local oscillator signal in case of mixing) is fed into the travelling wave tube and the detected signal (or i-f signal) is taken from the collector circuit. The voltages on the different electrodes are the same as in amplifier operation except that of the collector which is considerably depressed. The collector current in the absence of input signal depends very strongly on collector voltage. The collector current in the presence of signal is altered. The current difference, ΔI_k, and its ratio to input power, $\Delta I_k/P_c$, are plotted

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1

against input power. For small input power ($P_c < 5\mu W$) the detector characteristics are near to quadratic. The minimum detectable signal was found to be about 10^{-10} watt which is of the same order as that obtainable by a TWT-crystal combination. In mixer operation the chosen i-f frequency was 40 Mc. The dependence of conversion gain and i-f power on input power is plotted, showing about 17 db conversion gain in low level operation. I-f power plotted against local oscillator power shows a maximum around $P_{10} \cong 50 - 70$ microwatts. The limit sensitivity of the travelling wave tube mixer was found to be worse than that of the TWT-crystal by 5 to 10 db. The bandwidth of the mixer was not determined but in each case it exceeded 10 %. Some experiments were also performed by feeding back the higher frequency to the input of the travelling wave tube. The limiting sensitivity improved in this case by approximately 3 db. There are 6 figures.

ASSOCIATION: Fizicheskiy fakul'tet Moskovskogo gosudarstvennogo universiteta im. M.V. Lomonosova, Kafedra radiotekhniki (Physics Faculty of Moscow State University im. M.V. Lomonosov, Department of Radio Engineering)

SUBMITTED: June 8, 1961

Card 2/2

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1

BRANDT, Aleksandr Aleksandrovich; KOSTIYENKO, A.I., red.; PLAKSHE, L.Yu., tekhn. red.

[Study of dielectrics at superhigh frequencies] Issledovanie dielektrikov na sverkhvysokikh chastotakh. Moskva, Fizmatgiz, 1963. 403 p. (MIRA 16:5)
(Dielectrics)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1

BERMAN, Lev Solomonovich; KOSTIYENKO, A.I., red.; MIKHLIN, E.I., tekhn. red.

[Nonlinear capacitance of semiconductors] Nelineinaia poluprovodnikovaia emkost'. Moskva, Fizmatgiz, 1963. 85 p. (MIRA 16:8)

(Semiconductors) (Transistors)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1

VARGAFTIK, Natan Borisovich; KOSTIYENKO, A.I., red.; KIVILIS, S.Sh., red.; SKURLATOV, V.I., red.; KRYUCHKOVA, V.N., tekhn. red.

[Manual on the thermophysical properties of gases and liquids] Spravochnik po teplofizicheskim svoistvam gazov i zhidkostei. Moskva, Fizmatgiz, 1963. 708 p. (MIRA 16:12)
(Gases--Thermodynamics) (Liquids--Thermodynamics)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1

KHARKEVICH, Aleksandr Aleksandrovich; KOSTIYENKO, A.I., red.;
KRYUCHKOVA, V.N., tekhn. red.

[Control of radio interference] Bor'ba s pomekhami. Moskva, Fizmatgiz, 1963. 274 p. (MIRA 16:12)
(Radio--Interference) (Information theory)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1

ARTSIMOVICH, Lev Andreyevich; KOSTIUKOV, A.I., red.; BRUNO, K.F., tekhn. red.

[Controlled thermonuclear reactions] Upravliaemye termoiadernye reaktsii. Izd.2., perer. Moskva, Fizmatgiz, 1963. 496 p. (MIRA 17:3)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1

STEPANENKO, Igor' Pavlovich; KAGANOV, I.L., prof., retsenzent; KOSTIYENKO, A.I., red.; LARIONOV, G.Ye., tekhn. red.

[Principles of transistor theory and transistor circuits] Osnovy teorii tranzistorov i tranzistornykh skhem. Moskva, Gosenergoizdat, 1963. 375 p. (MIRA 17:3)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1

ERGLIS, Kronid Eduardovich; STEPANENKO, Igor' Pavlovich; KOSTIYENKO, A.I., red.

[Electronic amplifiers] Elektronnye usiliteli. Izd.2., ispr. i dop. Moskva, Nauka, 1964. 539 p.
(MIRA 17:10)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1

RIZKIN, Abel' Aronovich; KOSTIYENKO, A.I., red.

[Principles of the theory and design of electronic amplifiers] Osnovy teorii i rascheta elektronnykh usilitelei. Moskva, Energiia, 1965. 462 p.
(MIRA 18:6)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1

PIKUS, Grigoriy; KOSTIYENKO, A.I., red.

[Principles of the theory of semiconductor devices] Osnovy teorii poluprovodnikovykh priborov. Moskva, Nauka, 1965. 448 p. (MIRA 19:1)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1

DANITSKIY, Illarion Savvich; KOSTOLEVSKIY, M.M., red.; ZINCHENKO, V.S., red.izd-va; PAVLOVSKIY, A.A., tekhn. red.

[The plywood market of capitalist countries] Fanera; rynok kapitalisticheskikh stran. Moskva, Vneshtorgizdat, 1963. 202 p. (MIRA 16:7)

(Plywood industry)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-1

KOSTIYEVSKIY, YAN

"Organization and results of studies of the epidemiology of sporadic typhus fever in Poland."

report submitted at the 13th All-Union Congress of Hygienists, Epidemiologists and Infectionists, 1959.

[illegible], Vol 15, No 2, Feb 66, p 111

Abstract: Experiments on cats indicated that there are two systems of the synaptic effect of afferent impulses carried from the visceral nerve to the investigated motoneurons. One acts faster and does not require [illegible] be organized on the principle of reciprocity. The other system is more efficient, takes a more complicated path, activates flexon motoneurons, and inhibits extensor motoneurons. 2 Western, 1 Czech reference. Submitted at "16 Days of Physiology" at Kosice 30 Sep 65.

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220010-

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CZECHOSLOVAKIA/RUSSIA

DUDA, P., KOSTJUK, P.G., PREOBRAZENSKY, N.N.; Institute of Normal and Pathological Physiology, Slovak Academy of Sciences (Ustav Normalnej a Patologickej Fyziologie SAV), Bratislava; Physiological Institute, Ukrainian Academy of Sciences, /Original version not given/, KIEV.

"The Mechanism of the Inhibitory Effect of Viscero-Motor Reflections."

Prague, Ceskoslovenska Fysiologie, Vol 15, No 2, Feb 66, pp 111-112

Abstract: Changes of synaptic potentials of lumbar motoneurons during frequent excitation of n. splanchnicus and the relationship of synaptic processes evoked by impulses from visceral and somatic nerves were investigated. Various impulses causing depressions and the mechanism by which these depressions are evoked are described. The intensity and the duration of these